

## NOTES ON *HAEMANTHUS*: TWO NEW SPECIES FROM THE WESTERN CAPE

DEIRDRE A. SNIJMAN

(Compton Herbarium, Kirstenbosch)

### ABSTRACT

The Namaqualand species known previously in South African herbaria as *Haemanthus undulatus* Herbert, a name which is antedated by *Haemanthus undulatus* (L.) Thunb., is described *de novo* as *Haemanthus crispus* Snijman. *Haemanthus barkerae* Snijman, a new species from the Western Cape Province is also described. Both species are illustrated.

### UITTREKSEL

NOTAS OOR *HAEMANTHUS*: TWEE NUWE SPESIES UIT DIE WESTELIKE KAAPPROVINSIE

Die Namakwalandse spesie wat voorheen in Suid-Afrikaanse herbaria benoem is as *Haemanthus undulatus* Herbert, voorafgegaan deur die ouer naam *Haemanthus undulatus* (L.) Thunb., word *de novo* beskryf as *Haemanthus crispus* Snijman. *Haemanthus barkerae* Snijman, 'n nuwe spesie uit die Westelike Kaapprovinsie, word ook beskryf. Albei spesies word geïllustreer.

### *Haemanthus crispus* Snijman, sp. nov.

*Haemanthus crispus* Snijman species nova; foliis angustis (7-33 mm latis) loratis canaliculatis sinuatis, et inflorescentiis 4-6 valvis spathis late obtrullatis rubris erectis aequantibus flores, distinguitur.

*Bulbus* obclavatus vel globosus, solitarius vel caespitosus, ad 60 mm diam., in sectione transversali rotundus vel mediane leviter compressus; tunicae aequaliter marcescentes, papyracentes, et atrofuscentes; tunicae interiores carnosae, albae. *Folia* dua, interdum unica vel tertia, hysternantha, suberecta vel recurvata; lamina lorata, 100-200(-350) mm longa, 7-20(-33 mm) lata, canaliculata, viridis vel glauca, pilis brevis rigidis tenuiter vel dense vestita; pagina abaxialis marronina et atroviridi maculata, basin versus aliquam costata; margina per totam longitudinem sinuata vel undulata, vel tantum basin versus, raro plana, plerumque rubidis limitata. *Pedunculus* ad 150 mm longus, 6-12 mm latus et 4-5 mm crassus, rubescens, immaculatus vel atrorubro punctatus, glaber. *Umbella* obovata ad obconica, 15-40 mm lata supra. *Valvae spathaceae* 4-5(-6), erectae, aeqans flores plus minusve, late obtrullatae ad spathulatae, 22-40 mm longae, 13-35 mm latae supramediae, rubellae, ceraceae et carnosae; apices

plerumque obtusi et mucronati. *Flores* 6–25, compacti, rubri, basi et apice albescentes. *Pedicilli* 1–4(–7) mm longi, rubelli. *Perianthium* 15–26 mm longum; tubus 2–9 mm longus, sexgibbosus superne; segmenta erecta, lineares ad anguste spathulata, 12–20 mm longa, 0.75–2 mm lata; apices obtusi, ampliati. *Filamenta* ad 10 mm exserta, albida ad rubella. *Antherae* 1–2 mm longae ubi apertae, luteae. *Ovarium* subglobosum, 2–4 diam., viride vel erubescens. *Stylus* stamina leviter excedens. *Baccae* sphaericae, 13–20 mm diam., roseae et pulposae ubi maturae, arcte fasciculatae. *Semina* 1–4, globosa ad 10 mm diam., atrophyrea.

*Type:* South Africa, Namaqualand, 61 km north of Vanrhynsdorp towards Nuwerus, 28/3/1981, *Snijman 410* (NBC, holotype; K, MO, PRE, S, isotypes). Fig. 1.

*Bulb* obclavate to globose, solitary or clumped, up to 60 mm diam., round in cross section or slightly compressed in the median plane; tunics dying down evenly forming a dark brown papery covering; inner tunics fleshy and whitish. *Leaves* 2, occasionally 1 or 3, appearing shortly after the inflorescence, suberect or recurved; blade lorate, 100–200(–350) mm long, 7–20(–33) mm wide, canaliculate, green or glaucous, sparsely to densely hirsute with short, stiff hairs; abaxial surface with dark green and maroon blotches, somewhat ribbed towards the base; margins sinuate to undulate throughout, or towards the base only, rarely entirely flattened, usually outlined with red. *Peduncle* up to 150 mm long, 6–12 mm wide and 4–5 mm thick, pure red or occasionally with dark red mottling, glabrous. *Umbel* obovate to obconical, 15–40 mm wide above. *Spathe valves* 4–5(–6), erect and more or less equalling the flowers, broadly obtrullate to spathulate, 22–40 mm long, 13–35 mm broad above the middle, coral to scarlet, waxy and fleshy; tips mostly obtuse and mucronate. *Flowers* 6–25, compact, coral to scarlet, whitish at the base and tips. *Pedicels* 1–4(–7) mm long, pale scarlet. *Perianth* 15–26 mm long; tube 2–9 mm long, with six gibbosities above; segments erect, linear to narrowly spathulate, 12–20 mm long, 0.75–2 mm wide; tips obtuse, swollen. *Filaments* exserted by up to 10 mm, whitish to pale scarlet. *Anthers* 1–2 mm long when open, yellow. *Ovary* subglobose, 2–4 mm diam., green to rosy. *Style* slightly exceeding the stamens. *Berries* spherical, 13–20 mm diam., pale pink and pulpy when ripe, tightly clustered together. *Seeds* 1–4, globose up to 10 mm diam., dark reddish-brown.

Flowering time: March–April (–May); usually up to a month earlier in cultivation.

Leafing period: leaves emerge from May and die back by October.

Distribution: the species is found in abundance throughout Namaqualand. It grows in a variety of habitats, ranging from the flat sandy coastal plain in the

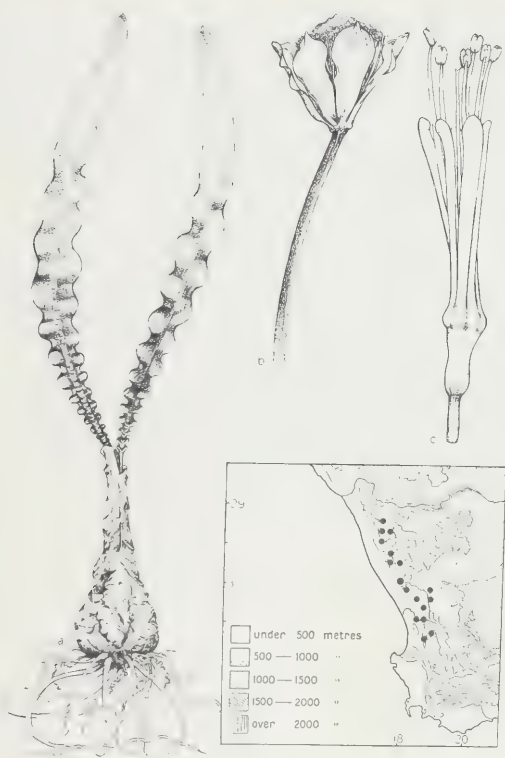


FIG. 1.

Morphology and distribution of *Haemanthus crispus* Snijman. a, bulb and leaves approx.  $\times \frac{1}{2}$ ; b, inflorescence  $\times \frac{1}{2}$ ; c, flower  $\times 2$ .

west through to sandstone outcrops along the first escarpment in the east, along the banks of the Olifants River in the south to amongst granite boulders near Steinkopf in the north (Fig. 1).

The features of *Haemanthus crispus* which make it distinctive, are its narrow, lorate sinuate and canaliculate leaves which are nearly always covered with very short stiff hairs. The inflorescence typically has few spathe valves, 4–6 in number. These are erect, scarlet, usually broadly obtrullate and more or less equal in length to the flowers. The flowers have short pedicels, usually less than 5 mm long and the perianth tube is distinctly six gibbose above.

In South African herbaria this species has previously been referred to as *Haementhus undulatus* Herbert. The use of Herbert's name, however, is invalidated by the prior existence of *H. undulatus* (L.) Thunb., now a synonym of *Nerine undulata* (L.) Thunb. An examination of the incomplete and very damaged remains of Herbert's type of *H. undulatus* (a Masson collection in the British Museum) left the author in some doubt as to its true identity. Consequently, it was deemed necessary to select a new type and to describe the species *de novo*.

CAPE—2917 (Springbok): Steinkopf (–BC), *Stayner* sub. KG 347/69 (NBG); Niegramoep (–DA), *Wikner s.n.* (SAM 63136); farm Driekoppe, south of Springbok (–DB), *Snijman 421* (K, NBG, PRE); O'okiep, *Giffen* sub *Marloth 11955* (PRE); Concordia, *Krapohl* sub *Marloth 5788* (PRE); Sannagass (–DC), *van Jaarsveld 5327* (NBG).

—3017 (Hondeklipbaai): 8 km west of national road N7 towards Grootvlei (–BB), *Snijman 414* (MO, NBG, PRE); 4 km west of farm Outuin, ascending Kamiesberg Pass, *Snijman 423* (NBG, PRE); Brakdam, 12 km north of Garies (–BD), *Bayer 349* (NBG); Darters Grave, 22 miles north of Garies, *Booyesen 12* (NBG), *Middlemost 2157* (NBG), *Snijman 412* (PRE).

—3018 (Kamiesberg): south-west slopes of Kamiesberg, along Studers Pass (–AC), *Snijman 426* (NBG, PRE); about 4,5 km south of Welkom (–AC/CA), *van Berkel 117* (NBG, PRE); 14,5 km north of Bitterfontein towards Garies (–CC), *Snijman 427* (K, NBG, PRE).

—3118 (Vanhynsdorp): 61 km north of Vanhynsdorp towards Nuwerus (–AB), *Snijman 410* (K, MO, NBG, PRE, S); 2 km north of Bitterfontein towards Garies, *van Berkel 119* (K, NBG, PRE); farm Steenkampskraal (–BC), *Hall 4113* (NBG); 2 km south of gate to Sandkraal farmhouse (–DB), *Snijman 429* (NBG); Klaver (–DC), *Compton* sub NBG 308/22 (BOL); 2,6 miles west of N7 road from Trawal towards Skurfkop, *Hardick* sub NBG 889/71 (NBG, PRE); top of Nardouws Pass ascending from near Trawal, *Snijman 289* (NBG); north of Bulshoek Barrage (–DD), *Barker 7304* (NBG).

—3119 (Calvinia): about 11 km north-east of Grasberg towards Theunisdrift (–AA), *Snijman 140* (NBG); foot of Vanhyns Pass (–AC), *Snijman 142* (NBG).

—3218 (Clanwilliam): farm Alpha at Algeria turnoff (–BD), *Fisher 13* (NBG).

—3219 (Wuppertal): Pakhuis (–AA), *Salter 7523* (NBG).

***Haemanthus barkerae* Snijman, sp. nov.**

*Haemanthus barkerae* Snijman species nova; inflorescentii roseis 4–5 valvis spathis patentibus. Species foliis angustis (7–25 mm latis) loratis pilis brevis, et canaliculatis in dimidio inferiore, et marginibus parallelis fere, a congeneribus diversa.

*Bulbus* globosus vel obclavatus, solitarius, ad 45 mm diam., in sectione transversali rotunde plus minusve; tunicae exteriores oblique marcescentes, papyracentes et atrofuscentes; tunicae interiores carnosae, albae. *Folia* dua interdum unica, hysternantha, recurvata vel interdum suberecta, anguste lorata, 90–260(–340) mm longa, 7–20(–25) mm lata, marginibus parallelis fere, in dimidio inferiore canaliculata aliquantum; pagina viridis vel atroviridis, pilis brevis rigidis subtus vel interdum utrinque, interdum glabrata; pagina abaxialis rubida et atroviridi extense fasciata; margina rubella. *Pedunculus* gracilis ad 140 mm longus, 4–7 mm latus et 3–4 mm crassus, roseus, interdum leviter marmoratus, glaber vel interdum pilis brevis. *Umbella* obconica, patens, 35–60 mm lata. *Valvae spathaceae* 4(–5), patentes, floribus longiorae vel breviorae, oblongae lanceolatae, (20–)25–50 mm longae, 4–16 mm latae ad medium, roseae, ubi novellae lucentes; apices acuti. *Flores* 7–30, laxi, roseoli, apice albescentes. *Pedicilli* (4–)7–18 mm longi, roseoli. *Perianthium* 13–18 mm longum; tubus 1.5–3 mm longus, laevis, anguste campanulatus; segmenta patentia aliquantum lineares ad anguste lanceolata, 11–16 mm longa, 1.5–2 mm lata; apices obtusi vel subacuti. *Filamenta* ad 8 mm exerta, roseola ad albida. *Antherae* 1.5–2 mm longae ubi apertae, luteae. *Ovarium* subglobosum, 2–3 mm diam., viride vel erubescens. *Stylus* stamina leviter excedens.

*Type:* South Africa, Cape Province, 63.5 km from Calvinia on the road towards Loeriesfontein, fl. NBG 14/4/1980, *Snijman* 132 (NBG, holotype; PRE, isotype). (Fig. 2.).

*Bulb* globose to obclavate, solitary, up to 45 mm diam., more or less circular in cross section; outer tunics dying down slightly obliquely, usually forming a dark brown papery covering; inner tunics fleshy and whitish. *Leaves* 2, occasionally 1, appearing shortly after the inflorescence, recurved or occasionally sub-erect, narrowly lorate. 90–260(–340) mm long, 7–20(–25) mm wide, with almost parallel sides, somewhat canaliculate in the lower half; blade dull or light green, with short stiff hairs covering the abaxial surface, or occasionally both surfaces, sometimes glabrous; abaxial surface with extensive red and dark green barring; margin reddish. *Peduncle* slender, up to 140 mm long, 4–7 mm by 3–4 mm wide, reddish-pink, sometimes faintly marbled, glabrous or occasionally sparsely covered with short hairs. *Umbel* obconical, spreading, 35–60 mm across. *Spathe valves* 4(–5), spreading almost to a horizontal position, shorter or longer than the flowers, oblong lanceolate, (20–)25–50 mm long, 4–16 mm broad near the middle, rose to magenta-rose, glistening and fleshy when fresh; tips acute. *Flowers* 7–30, lax, rose-pink with white tips. *Pedicels* (4–)7–18 mm long, pinkish. *Perianth* 13–18 mm long; tube 1.5–3 mm long, smooth, narrowly campanulate; segments somewhat spreading, linear to narrowly lanceolate, 11–16 mm long, 1.5–2 mm wide; tips obtuse or subacute. *Filaments* exerted by up





FIG. 2.

*Haemanthus barkeri* Snijman. 1, inflorescence  $\times \frac{2}{3}$ ; 2, flower  $\times 1\frac{1}{2}$ ; 3, half flower  $\times 2$ ; 4, bulb and leaves  $\times \frac{2}{3}$ , and transverse section of leaf  $\times 2$ .

to 8 mm, pink to whitish above. *Anthers* 1.5–2 mm long when open, yellow. *Ovary* subglobose 2–3 mm diam., reddish-green. *Style* slightly exceeding the stamens. *Berry* not known.

Flowering time: February—April has been recorded from cultivated plants.  
Leafing period: from May until October.

Distribution: the species occurs on the plateau between the Bokkeveld mountains near Nieuwoudtville in the west to the Hantamsberg in the east. The most northerly locality yet recorded is near to Loeriesfontein. Throughout this area *H. barkerae* is found in localised populations of several scattered individuals which grow in heavy clay soils on flat or sloping terrain (Fig. 3).

*Haemanthus barkerae* is distinguished from all other pink-flowered species in the genus by its leaves which are narrow, lorate and almost parallel-sided. They are somewhat canaliculate towards the base, mostly bear short stiff hairs and are characteristically barred with dark green and red on the undersurface.

In the past *H. barkerae* has been called *H. pumilio* Jacq., a name which has been loosely applied in South African herbaria to various Western Cape species of *Haemanthus*, having inflorescences with pink, spreading spathe valves. *Haemanthus pumilio* Jacq. *sensu stricto* has lorate leaves which are shorter (95–130 mm long) and narrower (5–15 mm wide) than those of *H. barkerae*; they are always glabrous and usually twisted. It is limited to the flats in the vicinity of Stellenbosch.

This attractive new species is named in honour of Miss W. F. Barker who, in addition to being the first to make a complete collection of this species, has contributed greatly to the knowledge of the genus as a whole through her meticulous collections of many other *Haemanthus* species.

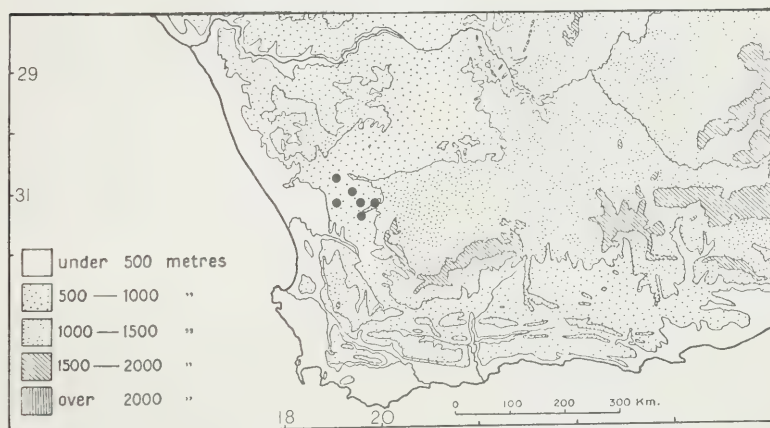


FIG. 3.  
Distribution of *Haemanthus barkerae* Snijman.

CAPE—3019 (Loeriesfontein): kloof 3 miles south of Loeriesfontein (—CD), *E. Oliver s.n.* (NBG).

—3119 (Calvinia): Kokerboomkop between Loeriesfontein and Nieuwoudtville (—AB), *Hiemstra & Hardick s.n.* (NBG 899/71); farm Brandkop, 46,2 km from Loeriesfontein towards Nieuwoudtville, *Snijman 136* (NBG, PRE); 63,5 km from Calvinia towards Loeriesfontein, *Snijman 132* (NBG, PRE); farm Charleyse-Hoek, Nieuwoudtville (—AC), *Hall 4134* (NBG); farm Glen Lyon, near Nieuwoudtville, *Mauve & I. Oliver s.n.* (PRE 57721); 1,6 km from Calvinia/Loeriesfontein road towards Turon (—BC), *Snijman 130* (NBG); Akkerdam, lower slopes of Hantamsberg (—BD), *Barker 9341* (NBG); Kareeboomfontein, Calvinia, west of Rebunie (—DA), *Hanekom 2374* (PRE).

#### ACKNOWLEDGEMENTS

I am most grateful to my colleagues at Kirstenbosch and the Karoo Botanic Garden for their help and encouragement and to Nicky and Fred van Berkel for their invaluable assistance in the field.